



United States
Department of
Agriculture

Forest
Service

November 2006



Appendix A

Monitoring Plan for Mitigation Measures

South Branch Kinzua Creek Project

**Marienville Ranger District
Allegheny National Forest**

**Wetmore and Hamlin Townships
McKean County, Pennsylvania**

MITIGATION MEASURES AND MONITORING PLAN

Mitigation measures are designed to protect the physical, biological, and social environments within the SBKC project area. Mitigation measures are necessary when a specific situation requires Forest Plan standards and guidelines be exceeded to avoid potentially significant effects. The following mitigation measures are to be implemented in the SBKC project. References are included in parentheses for each mitigation measure. Monitoring is designed to ensure that mitigation measures are being implemented as part of the project activities. The monitoring activities below are in addition to those listed in the Forest Plan.

Table A-1. Mitigation Measures and Monitoring Plan

MITIGATION MEASURE	MONITORING PLAN
<i>Wildlife</i>	
Site preparation and non-commercial release cuts would be conducted outside the period of April 1 to July 15, to avoid possible impacts to nesting songbirds (<i>Pennsylvania Breeding Bird Atlas, 2006</i>)	This mitigation measure will be included in the site preparation and release contracts for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.
Timber harvesting will be permitted only between November 1 and March 31 in Stands 638-44, 668-06, and 858-38. (<i>Shaffer, 1991</i>)	This mitigation measure will be included in the site preparation and timber sale contracts for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.
<i>Soils and Hydrology</i>	
There will be no skidding and movement of machinery through spring seeps and stream channels. Skid trails and landings will be located away from the head of any seep. Appropriate erosion control methods will be implemented to minimize movement of silt into any seep. (<i>USDA-FS, 2001a</i>)	This mitigation measure will be included in the herbicide and timber sale contracts for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.
On Group 2 soils, main skid trails should occupy less than 10 percent of the stand. Existing main skid trails should be used whenever possible to reduce additional impacts. (<i>USDA-FS, 2001a</i>)	This mitigation measure will be included in the timber sale contract for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.
For stands where inclusions of wet soils (drainage Group 2 or 3) are found, the following shall apply: 1) All heavy equipment (including feller-bunchers) will be excluded from wet soils inclusions less than 1 acre; 2) Main skid trails should be kept out of wet soil inclusions > 1 acre whenever possible. The stand-level measures identified above will apply where skid trails must be located within wet soil inclusions (<i>USDA-FS, 2001a</i>)	This mitigation measure will be included in the timber sale contract for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.

Road drainage outlets will be armored to prevent accelerated erosion on all roads proposed for maintenance. (<i>Commonwealth of Pennsylvania, 2000</i>)	This mitigation measure will be included in the road maintenance contract for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.
<i>Vegetation</i>	
Retain scale-free or lightly infested beech to provide for mast and snag recruitment. Healthy beech should have full, healthy crowns, tight smooth bark, and no rot or cavities. They should not exhibit any scale (or only have light scale present), fungus, crown dieback, tarry spots, or puckered bark. (<i>Burns and Houston, 1987. Mielke and others 1986</i>)	The general marking guidelines and/or individual silvicultural prescriptions will include this mitigation. Marking Quality Compliance Checks are completed for each sale to ensure that stands are marked according to silvicultural prescriptions.
<i>NNIS</i>	
In order to reduce the occurrence of NNIS and minimize the risk of spread into other areas, areas of infestation will be mapped and on sites where infestation has been documented equipment used in timber harvesting or reforestation activities will be cleaned prior to the arrival and upon departure of all treatment areas (<i>USDA-FS. 2005b</i>)	This mitigation measure will be included in the herbicide, fence-building, and timber sale contracts for this project and contract inspections will be conducted to ensure that this mitigation measure is being implemented on-site.